

Atty. Dkt. No. 99CR125/KE

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Previously Presented) A statechart system for use in the development of avionic software, the avionic software requiring deterministic behavior, the statechart system comprising:  
a statechart stored on a computer readable medium, the statechart comprising:  
a first state;  
a second state; and  
a third state, the third state including the first state and the second state, the first state being parallel to the second state, wherein the first state is ordered with respect to the second state, whereby the statechart does not allow parallel states to be unordered to ensure the deterministic behavior of the statechart.
2. (Previously Presented) The statechart system of claim 1 further comprising:  
a fourth state in parallel with the first state and the second state and included within the third state, the third state being ordered with respect to the first state and the second state.
3. (Previously Presented) The statechart system of claim 2 further comprising:  
a fifth state in parallel with the first state, the second state and the fourth state and included within the third state, the fourth state being ordered with respect to the first state and the second state and the third state.
4. (Cancelled).
5. (Cancelled).
6. (Previously Presented) The statechart system of claim 1 wherein the avionic software is a graphical flight planner.

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7. (Previously Presented) A modified Harel statechart system formed on a computer, the modified Harel statechart system comprising:

a modified Harel statechart formed on a computer, the modified Harel statechart including a mathematical representation of a group of states, the group of states including a first state including a plurality of ordered parallel states, the mathematical representation ensuring deterministic operation.

8. (Cancelled).

9. (Previously Presented) The modified Harel statechart system of claim 7 wherein the group of states are represented mathematically.

10. (Cancelled).

11. (Cancelled).

12. (Cancelled).

13. (Cancelled).

14. (Previously Presented) A method of providing avionic software, the method comprising:

providing a graphical representation of a state including a plurality of parallel states, the parallel states being ordered with respect to each other, the parallel states being ordered so that only one of the parallel states is active in response to a particular event; and

applying the mathematical representation to an execution engine to create the avionics software.

15. (Original) The method of claim 14 wherein the avionics software is fully deterministic.

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16. (Cancelled).
17. (Cancelled).
18. (Cancelled).
19. (Cancelled).
20. (Cancelled).